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ABSTRACT

A project was designed to help beginning and experienced teachers of vocational agriculture learn and/or become current in the practice of present paravetical competencies that are needed to teach adult students. Specific objectives of the project included providing teachers with the skills necessary to teach students via laboratory demonstrations or supervised occupational experience projects; providing information concerning the legalities of performing paravetical competencies, and helping teachers develop paravetical task sheets for vocational agriculture instructional units. As a result of the 14 project-developed clinics involving Pennsylvania vocational agriculture teachers, county extension specialists, veterinarians, farmers, and Pennsylvania State University faculty, the following project outcomes were achieved: identification of paravetical competencies needed by vocational agriculture teachers, development of an awareness of legalities pertaining to the performance of those competencies, development of paravetical task sheets in sheep and poultry, inservice and preservice instruction of vocational agriculture teachers in the paravetical competencies required in their geographical area, and integration of paravetical skills with supervised occupational experience projects in animal production. Because the project was so successful, recommendations were made calling for development of additional task sheets and implementation of the teacher training course on a regular basis. (MN)

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Final Report

PARAVETICAL COMPETENCY DEVELOPMENT FOR TEACHERS OF VOCATIONAL AGRICULTURE

(CONTRACT NO.: 93-1006

by

Donald E. Evans
Project Director

and

Glen W. Easter
Resource Specialist

The Pennsylvania State University
College of Agriculture
Department of Agricultural and Extension Education

September 1981

Pennsylvania Department of Education
Bureau of Research and Evaluation
Research Coordinating Unit
for
Vocational Education

OEO 31/344

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DISCLAIMER

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ACKNOWLEDGEMENTS

This report is submitted as the final summation of the project for paravetical competency development for teachers of vocational agriculture in Pennsylvania. The project was conducted by the Department of Agricultural and Extension Education.

The Project Director and Resource Specialist express their sincere appreciation to several individuals: Drs. L. J. Hutchinson and L. D. Schwartz, D.V.M., Extension Veterinarians, Department of Veterinary Science, for their total support and cooperation; Mrs. Peg Luckovich and Ms. Judy Hicks for their secretarial assistance; and Dr. Samuel M. Curtis, Head of the Department of Agricultural and Extension Education, for his advice nd counsel. The success of the project is a direct result of the relentless attention for detail of the local consultants. Each clinic had to be a meaningful exper nce if the competencies were to be learned. The following vocational agriculture teachers were local consultants:

1. Charles E. Ackley, Ephrata Area HS, Ephrata, PA
2. Paul G. Benchoff, Waynesboro Area HS, Waynesboro, PA
3. Harold L. Cameron, Huntingdon Area HS, Huntingdon, PA
4. Marvin G. Hawk, Tunkhannock Area HS, Tunkhannock, PA
5. Robert T. Holley, Walter Biddle Saul HS, Philadelphia, PA
6. Stephen R. Kline, West Snyder HS, Beaver Springs, PA
7. Edward D. Kuckuck, Blairsville SHS, Blairsville, PA
8. Robert E. Leib, Cumberland Valley HS, Mechanicsburg, PA
9. Donald R. McNutt, Conrad Weiser Area HS, Robesonia, PA
10. David D. Seamans, State College Area HS, State College, PA
11. Ronald L. Shrock, Armstrong School District, Ford City, PA
12. Leroy C. Smeltz, Tri Valley HS, Hegins, PA

13. David L. Ward, Wilmington Area HS, New Wilmington, PA

14. Clair W. Zerby, Cowanesque Joint HS, Westfield, PA

A sincere note of thanks goes to the many farmers, veterinarians, vo-ag teachers, and extension specialists who shared their facilities, expertise, and time so that we could learn the "right way."

ABSTRACT

PA 93-1006: Paravetical Competency Development for Teachers of Vocational Agriculture

Donald E. Evans
The Pennsylvania State University
University Park, PA 16802
814-863-0443

$33,691 Federal
$00,000 Non-Federal
July 1, 1980 -
June 30, 1981

Objectives

1. Beginning and experienced teachers of vocational agriculture will learn new and enhance present paravetical competencies that are needed to teach students via laboratory demonstrations or the supervised occupational experience project.
2. Beginning and experienced teachers of vocational agriculture will become competent in paravetic skills that are needed to teach animal sciences to adults.
3. Beginning and experienced teachers of vocational agriculture will become aware of legalities that pertain to the performance of such paravetical competencies.
4. Beginning and experienced teachers of vocational agriculture will develop paravetic task sheets for vocational agriculture instructional units.

Outcomes

The activities in the project were accomplished through 14 clinics involving vocational agriculture teachers, county extension specialists, veterinarians, farmers, and local faculty as resource people. Participants in the clinics (198) included vocational agriculture teachers, extension specialists, and undergraduate Agricultural Education students. Planned according to the teachers' prescribed needs, the sessions dealt with paravetical competencies of horses, dairy and beef cattle, sheep, swine, goats, poultry, rabbits, and other small animals. These activities led to the following outcomes:

1. Identification of animal health (paravetical) competencies by species that were needed by teachers of a given vocational agriculture inservice center group of teachers.
2. Development of an awareness of the legalities that pertain to the performance of animal health (paravetical) competencies.
3. Development of an awareness of the associated but non-veterinarian legalities that pertain to the health and well being of animals.
4. Development and utilization of paravetical task sheets in sheep and the development and testing of task sheets in poultry.
5. Education of inservice and preservice vocational agriculture teachers and extension agents in the specific paravetical competencies required in their geographical area.
6. Observation of the planning, conducting, and evaluation of the demonstration (then participation) technique of teaching the hands-on-skills on the farm as it is used with young and adult farmers.
7. Development of an awareness of the need for a sound and viable

public relations plan for a vocational agriculture or extension program to address the animal health and/or husbandry concerns of the general public.

8. Integration of paravetical skills with the supervised occupational experience projects in animal production.
9. Sharing of teaching techniques in animal science when on-the-farm trips is not possible.

Audience

The resulting reports and materials are useful to teacher educators and vocational teachers in agricultural education and to extension specialists in extension education.

Publications and Available Materials

Final Report, "Paravetical Competency Development for Teachers of Vocational Agriculture," September 1980. Department of Agricultural Education.

Articles in Magazines:

Evans, Donald E. and Glen W. Easter. "Animal Health Competency Development in Agricultural Education," Science in Agriculture, Fall Issue 1981, College of Agriculture, The Pennsylvania State University.

Evans, Donald E. (no title given) (News Release) Department of Public Information and Relations, UPI, The Pennsylvania State University, September 9, 1980.

Schwartz, L. Dwight. "Animal Health Competency Program Needs Your Support," Pennsylvania Veterinarians Medical Association Newsletter, December 1980, pg. 9.

Schwartz, L. Dwight. "In-Service Training for Vo-Ag Teachers," Veterinary News, Cooperative Extension Service, The Pennsylvania State University; June 1980, Vol. 80 No. 3, pg. 1.

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BACKGROUND

There are several paraveterinary medical (Paravetic) competencies in the instructional areas of animal science that are needed by teachers of vocational agriculture at the high school and young adult instruction level. Vocational agriculture teachers need inservice training to stay alert to new and improved skills and techniques, as well as to know the current or regional legalities and limitations of teachers regarding their performance and/or the teaching of paravetic services.

The magnitude of the concern by the vocational agriculture teachers was reflected in a state-wide survey of inservice training needs for fiscal years 1980 and 1981. In that survey, 12 of the 15 (80%) Pennsylvania Vo-Ag inservice education centers listed paravetic instruction as the primary inservice training needed.

Likewise, there is concern by veterinarians about inadequately educated persons providing paravetical services. It is recognized, however, that most of paravetical techniques can be performed adequately by persons other than veterinarians, especially if such persons are properly trained in each procedure to be performed or taught. Properly educated includes some instruction in and knowledge of animal anatomy, physiology, and asepsis in the conducting of paravetical procedures. Such knowledge and awareness is essential in order to minimize the pain, suffering and/or undesirable side effects resulting to animals on which paravetical procedures are performed.

HB 1276, enacted in 1974, is known as the "Veterinary Medicine Practice Act" and regulates the practice of veterinary medicine in the Commonwealth of Pennsylvania and imposes penalties. The Legislative Intent and Purpose: "It is hereby declared that the practice of veterinary medicine is a privilege

which is granted by legislative authority in the interest of the public health, safety and welfare and to protect the public from being mislead by incompetent, unscrupulous, and unauthorized persons from unprofessional or illegal practices by persons licensed to practice veterinary medicine. This act is enacted in the interest of society, health, safety, and welfare of Pennsylvanians."

In view of the need for refresher and inservice type training by teachers of vocational agriculture in paravetical procedures, the Department of Veterinary Science at Penn State University agrees to work with the Department of Agricultural Education in providing this training. It must be recognized, however, that only those paravetical procedures which are not in violation of the Pennsylvania Veterinary Practice Act can be addressed. Even many of the routine paravetical procedures such as castration, dehorning, and vaccination are a violation when done on a fee basis by unlicensed persons whether or not they are veterinarians.

OBJECTIVES

This project was designed to be sensitive to vocational education's role in solving social and economic problems in the Commonwealth. It supported Governor Thornburgh's commitment to mobilizing the state's resources to solve citizens' problems. The project directly or indirectly addressed the Governor's plan through the following: reduction of welfare roles, achievement of sex equity, achievement of race equity, economic development through competent workers, cooperation, and integration of educational and governmental programs, positive attitudinal development of workers, and improved job placement. (The project objectives were listed on the page following the abstract.)

PROCEDURES

An agreement was developed between the Veterinary Science Department

and the Department of Agricultural Education at Penn State. Essentials of the agreement indicate: (a) that the members of the Veterinary Science Department will be assisting with the instruction of vo-ag teachers primarily at inservice education classes. They will not be available as speakers or instructors at vocational agriculture classes or meetings open only to members of young farmer classes. Meetings of this type are usually scheduled by the State-Federal Cooperative Extension Service and as such are open to the public. The scheduling of a veterinarian at non-extension meetings should be done by the respective local consultant and not be a part of this agreement.

Also, (b) members of each department will plan together those paravetical procedures to be taught. Only the procedures that are considered routine to livestock production will be included. Procedures requiring the use of surgical anesthesis such as ovariohysterectomy (spay), reduction of fracture and cesarean section, will not be included even though they are commonly done by licensed practicing veterinarians.

Major activities:

1. An advisory committee of educators and veterinarians was formed. The project director coordinated the activities and provided the supervision. A resource specialist was hired to conduct the paravetic clinics and other activities as deemed necessary by the project director to assure the success of the clinics. In view of the need for refresher and inservice education in paravetics for teachers of vocational agriculture, the Department of Veterinary Science at Penn State worked with the Department of Agricultural and Extension Education.
2. Faculty of each department planned those paravetical procedures to be addressed.

3. The resource specialist, working with the project director, department faculty, and the University extension veterinarians, set up the summer workshop for selected teachers (July 28 to August 1), established the clinic sites for paravetic competency development, identified the practicing veterinarians for resource persons, and the appropriate additional necessary resources.
4. During the Fall 1980, Winter 1981, and Spring 1981 terms, the paravetic clinics were conducted in conjunction with animal health classes. The clinics were conducted at the vocational agriculture teacher inservice centers throughout the state.
5. In addition to those paravetical competencies taught by the resource specialist, teachers were requested to demonstrate paravetic skills learned, as well as develop and publish task sheets. These task sheets were further developed for use by teachers of vocational agriculture. The task sheets were included in the curriculum library in the Department of Agricultural and Extension Education, Penn State.

PERSONNEL

Resource Specialist -- Glen Easter

Initiate and conduct the activities and procedures of the project. The Resource specialist provided the leadership necessary to achieve the objectives as stated.

Local Consultants -- (See Appendix A)

The local consultants were selected by the project staff to participate in the summer workshop. At the summer workshop, they were prepared to help conduct the clinics; also, they had the opportunity to practice paravetic skills and develop the clinics for teaching contemporary paravetical competencies.

Secretary (Part-Time) -- Peg Luckovich

Correspondence, typing course materials, reports, etc.

FACILITIES

The Agricultural and Extension Education and Veterinary Science Departments' facilities at The Pennsylvania State University were adequate, and they were utilized to conduct the project. Several local high schools provided classroom and laboratory space for the clinics.

EVALUATION AND REPORTS

Evaluation was an on-going process throughout the project. The paravetical competencies that were identified were reviewed by practicing veterinarians and vocational agriculture teachers in order that an appropriate paravetic competency development could be achieved. During the hands-on paravetical activities, each participant was evaluated with performance references. A final report (two copies) was submitted to the Bureau of Vocational Education at the conclusion of the project.

DISSEMINATION

The final report was submitted to VEIN for inclusion in their inventory. Task sheets and other educational resources was included in the curriculum library and Learning Resource Center, Department of Agricultural and Extension Education, The Pennsylvania State University. The information was also shared with other departments in the College of Agriculture at Penn State.

FINANCIAL SUPPORT

The materials, methods, and other information developed through this project is being integrated with the Agricultural Education undergraduate

program so that future students can benefit from the project results.

THE PRODUCT

Ag Ed 497v, Teaching Paravetics, was offered 14 times across the state of Pennsylvania. Although designed primarily for inservice vocational agriculture teachers on the past-secondary level, extension specialists, pre-service agricultural education (Ag Ed) undergraduates, and resident Ag Ed graduate students actively sought the course and enrolled in it (Figure 1). Enrollment included participants taking it for credit as well as audit (Figure 2). One hour of credit was available upon successful completion of the course and clinics.

Classes usually began with enrollment in the vo-ag classroom then moved to a nearby farm for a clinic on the first species to be studied. There were instances where enrollment took place at the farm. Only in the case of small animals, poultry, and legal aspects were classes held entirely in the vo-ag classroom and/or shop. A primary objective of the clinics was to conduct them in the same environment that a vo-ag teacher or extension specialist would conduct them. Facilities varied considerably from very modern to the not so up to date. Problems encountered were dealt with immediately as they would be in the case of an actual teaching situation. Resource persons were at every clinic to provide accurate information about the paravetical skills to be learned. Veterinarians, farmers, vo-ag teachers, extension specialists,

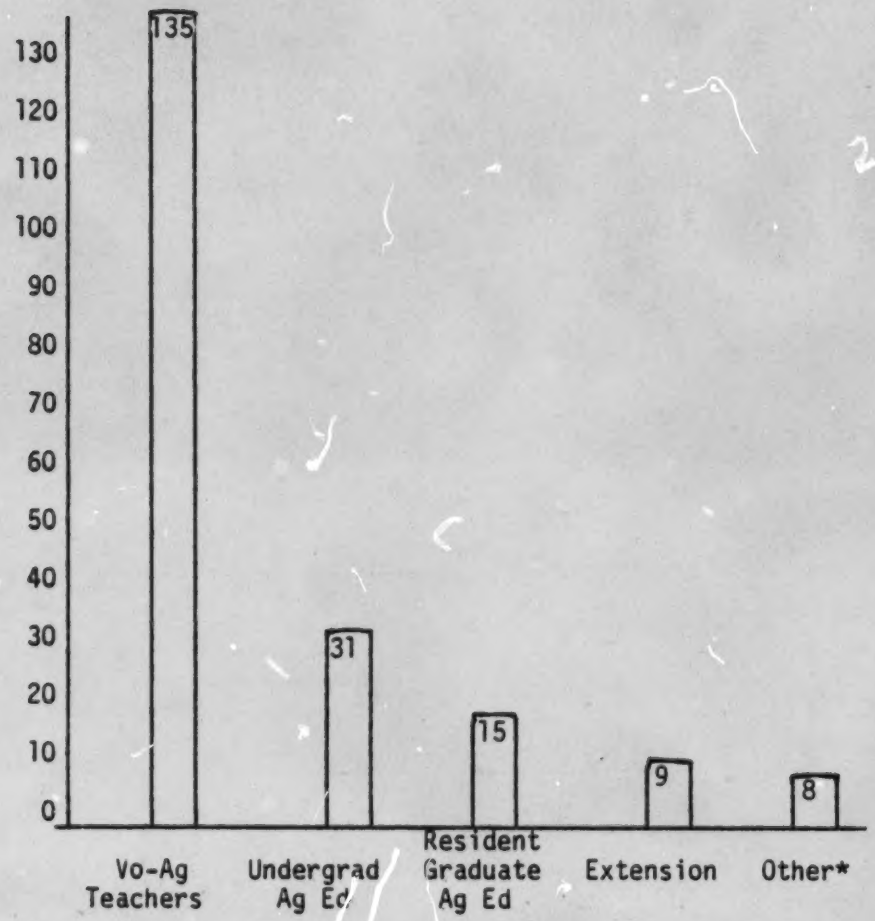
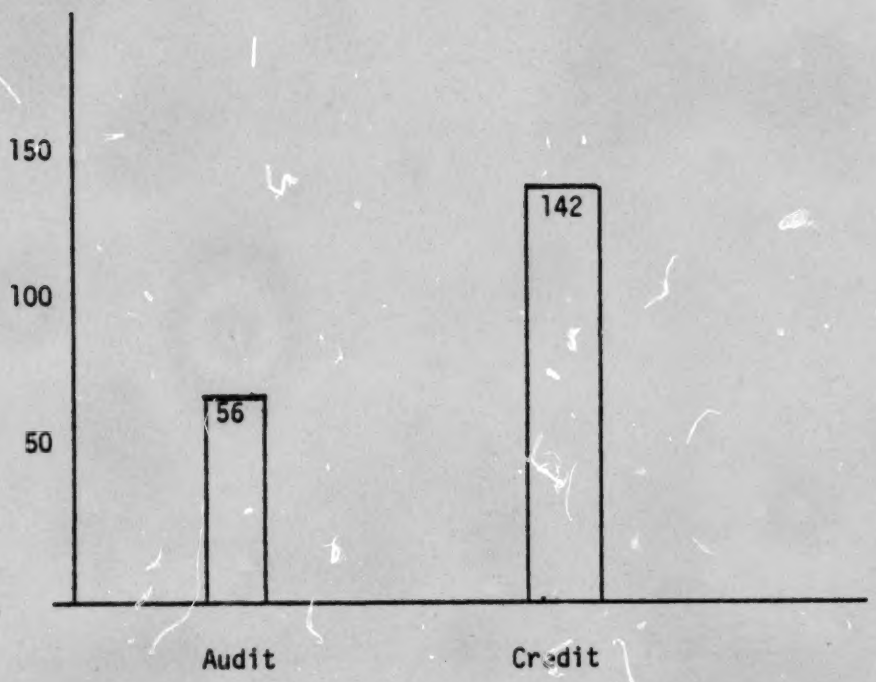


Figure 1. Number of Participants Including Credit and Audit Classification

*Young Farmers, High School Students, etc.



Total = 98

Figure 2. Classification of Participants by Credit and Audit Options

and other practitioners in the field were used to assist with the clinics (Figure 3). In many clinics more than one resource persons provided assistance.

At the initial notification of a clinic, each teacher received a postcard (see Appendix A) that allowed them to suggest by percent how much time should be spent on each species. With this information, the local consultants and the resource specialist could begin to make arrangements for classes and clinics. Demonstration farms were selected on the basis of willingness to cooperate with the objectives of the clinic and the availability of animals. Simulation of the actual setting that a teacher or extension specialist would hold a clinic was sought at all times. Since clinics were scheduled in the late afternoon and early evening, weather was also a concern. Temperatures varied from pleasant 60's to a frigid 10^0 above zero. Snow, rain, ice, and even clear skies were encountered. Conditions represented the field and the topics represented the teachers' needs.

The participants spent 25.3% of their time working cattle paravetical skills, 18.6% with swine, 17.0% with sheep, 14.8% with poultry, 12.4% with horses, 11.9% with small animals and classroom discussion.

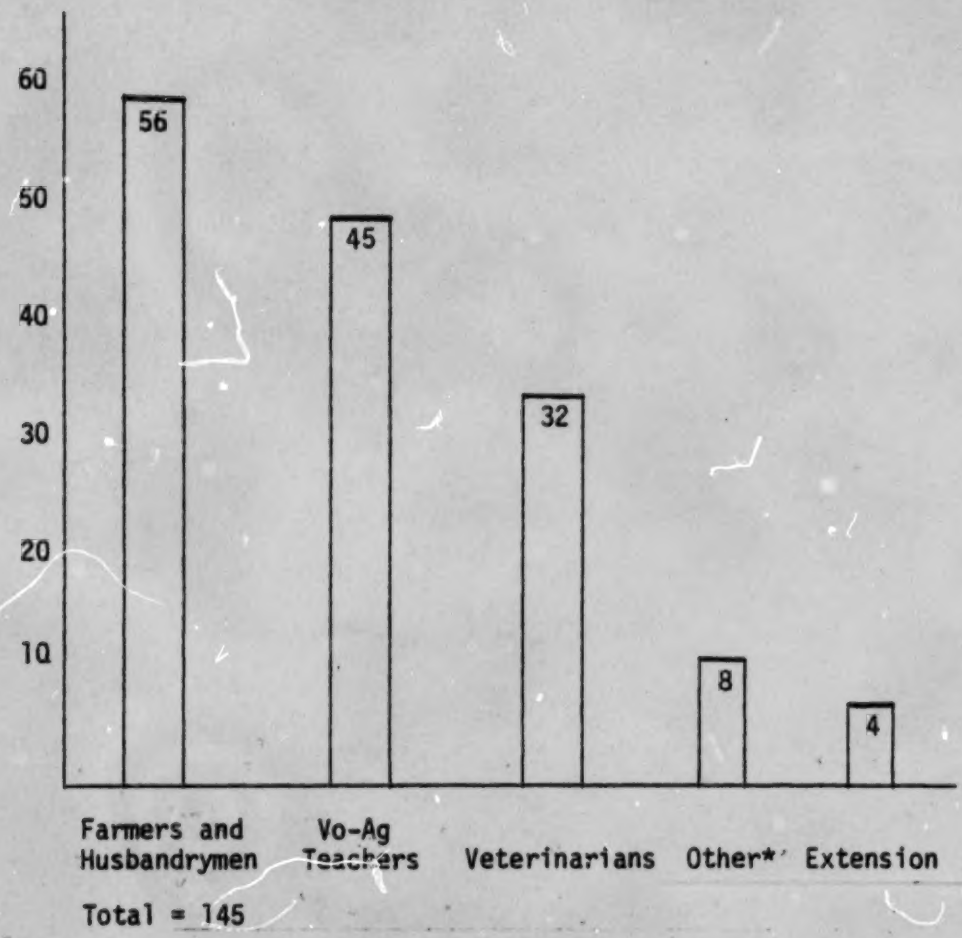


Figure 3. Classification of Resource Persons by Occupation

*Farriers, Hoof Trimmers, Commercial Dealers, etc.

SUMMARY

1. Either updating or initial paravetical skills were sought by nearly 40% of the vocational agricultural teachers in Pennsylvania (135/379).
2. Information is needed by all teachers, not just those working on advanced degrees and in need of credit. Twenty-eight percent of the participants took the course for no credit (56/198).
3. Interest as reflected by requested teaching time spent on animals for paravetical skills was spread eveningly along the traditional non-prevalent production species in Pennsylvania -- 20.0% for swine, 18.5% for sheep, 16.3% for poultry, 15.0% for dairy, 13.6% for horses, 12.9% for beef, and 3.7% for small animals. Dairy is the most prevalent production animal in Pennsylvania.
4. Utilization resource persons in a community is a must to teach up-to-date techniques in paravetical skills. Sixty-nine percent of the resource persons selected for their knowledge and expertise were not vocational agriculture teachers.
5. Because the average agricultural student at Penn State comes from a non-farm background (Table 1), there was a very strong interest in the clinics held near State College by undergraduate students in Agricultural Education. With three of the clinics offered near the University Park campus, 15.7% of the total participants in the clinics were preservice students (resident graduates accounted for 7.5%).
6. Existing paravetical sheep task sheets were an excellent teaching tool when teaching the sheep skills. The development and subsequent publication of paravetical poultry task sheets should have the same effect. The conclusions on the effectiveness of task sheets coincide with the empirical evidence of Diamond, 1981, and Ajala, 1981, research on task sheets.

7. Even as the proportion of our population that is in production agriculture shrinks, vocational agriculture has a responsibility to teach production skills and knowledge to inform every consumer of the vitalness of such skills and knowledge to the continuance of a strong food supply.

TABLE 1

RESIDENTIAL ORIGIN OF FIRST AND SECOND YEAR AGRICULTURE STUDENTS AT UNIVERSITY PARK*

August 1979

	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Farm, 60 percent or more of income from farm	41	14	15	8	56	12
Farm, less than 60 percent of income from the farm	28	10	18	9	46	9
Rural, non-farm	60	20	37	19	97	20
Village under 2,500 population	28	9	13	7	41	8
Town 2,500 to 24,999	70	23	60	31	130	26
Town 25,000 to 50,000	33	11	22	11	55	11
Metropolitan - over 50,000	40	13	30	15	70	14
Total	300	100%	195	100%	495	100%

*College of Agriculture, The Pennsylvania State University, University Park, PA 16802.

RECOMMENDATIONS

1. Due to the annual turnover rate for vocational agriculture teachers in Pennsylvania of approximately 10%, a course and appropriate clinics in teaching paravetical skills should be offered on a routine basis so that vocational agriculture teachers can maintain a maximum level of proficiency.
2. A clinic should be offered on an annual basis on the Penn State (University Park) campus but be conducted on farms surrounding State College. Such a course should be coordinated by an inservice master teacher development. Emphasis should be hands-on paravetical skills, as well as the demonstration (and participation) technique of teaching and the development of community relations that allows such field trips.
3. Paravetical task sheets should be developed on the other species of production livestock. Concentrating on swine first then dairy, horses, beef, and small animals in relationship to the general interests Pennsylvania's vo-ag teachers need to possess.

APPENDIX A

COURSE AND CLINIC PLANNING

ANIMAL HEALTH (PARAVETICAL) COMPETENCY DEVELOPMENT INSERVICE

VO AG TEACHER LOCAL CONSULTANTS

Inservice Center	Local Consultant
1. Wattsburg	Raymond E. Crilley William H. Guyer
2. Grove City	William J. Laughner David L. Ward
3. Youngwood	Elda M. Connor
4. Indiana	Edward D. Kuckuck Ronald L. Shrock
5. Clearfield	David D. Seamans
6. Martinsburg	Harold L. Cameron
7. Mansfield	Clair W. Zerby
8. Mifflinburg	Stephen R. Kline
9. Newville I	Robert E. Leib
10. Newville II	Paul G. Benchoff
11. Scranton	Leroy C. Smeltz
12. Upper Bucks	Roger A. Michelone
13. Philadelphia	Robert T. Holley
14. Ephrata I	Richard D. Moore
15. Ephrata II	Donald R. McNutt
X. University Park	Donald E. Evans L. Dwight Schwartz Lawrence J. Hutchinson

Draft

ANIMAL HEALTH (PARAVETICAL) COMPETENCY SEMINAR

July 28 - August 1, 1980
111 Animal Industry Building and Barns

MONDAY, JULY 28 -- REGISTRATION, ORIENTATION, AND POULTRY DAY

8:00 AM	Registration, Coffee and Donuts	*Evans & Schwartz*
9:00 AM	Orientation	
9:30 AM	External Parasites/Insect Control	*Collison*
10:30 AM	Disease and Internal Parasites	*Schwartz*
11:30 AM	Feed Selection/Quality Control	*Keene*
12:00 N	Lunch	
	Demonstrations & Hands-On Experience	*Poultry Plant*
1:00 PM	Debeak/Wing Sex/Tag/Vaccination	*Keene/Parsons/McCoy*
2:30 PM	Caponize Cockerels	*Jordan/Mincemoyer*
4:00 PM	Vena Puncture	*Resurreccion*
4:15 PM	Necropsy/Anatomy Exercise	*Schwartz/Keene*
5:15 PM	Adjourn	

TUESDAY, JULY 29 -- Beef and Dairy Day

8:00 AM	Review Poultry (111 Animal Industries)	*Evans & Schwartz*
8:30 AM	Mastitis Somatic Cell, CMT	*Hutchinson*
9:30 AM	Identify Disease Symptoms	*Griel*
10:00 AM	Parasites and Treatment	*Hutchinson*
10:30 AM	Injuries and Treatment	*Griel*
11:00 AM	Dehorn, Castrate, Vaccinate, Injections (IM)	*Griel*
11:30 AM	Heat Detection	*O'Connor*
12:00 N	Lunch	
1:00 PM	Demonstrations & Hands-On Experience	*Dairy Barn*
	A. Dehorn (spoon, paste, electric, manual, saw) Castrate (knife, burdizzo)	*Griel*
	B. Extra Teat Removal	*Warren Poage*
	C. Vaccination -- SC and IN	*Hutchinson*
	Temperature and Injection - IM	
	Deworm Calf - paste, drench, bolus	
	Implant - ear	
	D. Trim feet	*Don Nichols*
	E. Ring bull	*Griel*
	Animal Restraint -- casting, chute	*Dan Loy*
5:15 PM	Adjourn	

WEDNESDAY, JULY 30 -- Swine Day

8:00 AM	Review Beef & Dairy (111 Animal Industries)	*Evans & Schwartz*
8:30 AM	Disease Symptoms & Sick Animals	*Hutchinson*
	Treatment Methods - Injection, water feed	
9:30 AM	Identify parasite problems --	*Hutchinson*
	Internal and External --	
	Treatment Methods	
10:00 AM	Farrowing House Management/Sow/Pigs	*Hazlett*
10:30 AM	Estrus Detection/Breeding	*Hazlett*
11:00 AM	Castrate, vaccinate, iron shots	*Hutchinson*
	Scours, needle teeth, ID (needle gauge, length, site)	
12:00 N	Lunch	
1:00 PM	Demonstrations & Hands-On Experience	*Swine Barn*
	A. Castrate	*Hutchinson*
	Vaccination	
	Iron Shots	
	Temperatures	
	Scours	
	B. Needle Teeth	*Hazlett/Hosterman*
	Identification (tatoo, ear notch)	
	Estrus detection	
	Sow handling	
	Boar handling	

THURSDAY, JULY 31 -- Sheep Day

8:00 AM	Review Swine	
8:30 AM	Interpret Labels on Medicines	Griel
9:00 AM	ID, Disease, and Parasites	Griel
	Treatment-spray, dip, vaccination	
9:45 AM	Signs of Lambing	Griel/Merritt
	Assist Lambing (Griel slide series)	
	Newborn	
	Revive chilled lambs	
10:30 AM	Castrate, dock, ID (tag, tatoo, mark)	Merritt
11:00 AM	Trim Feet	Wise
	Foot Rot	Griel
11:30 AM	Determining Age	Merritt
	Shear Sheep (video tape by Ben Morgan)	Merritt
12:00 N	Lunch	
1:00 PM	Demonstrations & Hands-On-Experience	Sheep Barns
	Castrate, dock	Merritt
	Vaccination--Disease/Site/Route/Method	Griel
	Use of Thermometer	Griel
	Dip Spray	Kuzemchak
	Trim Feet	Wise
	Shearing	Morgan
	Deworm--drench, paste, bolus	Griel
	Aging/identification	Merritt
	Deworm--drench, paste, bolus	Kusemchak
7:00 PM	Evaluation and Inservice Plans	Evans & Schwartz
	Delta Theta Sigma Fraternity	

FRIDAY, AUGUST 1 -- Horse Day

8:00 AM	Review Sheep	
8:30 AM	Stable Hygiene	*Merritt*
9:00 AM	(Health Program) Disease and Parasite Symptoms and Treatment	*Schwartz*
9:45 AM	Horse leg and foot care, choeing, exercising/leg wrap	*Studebaker/McClosky*
10:15 AM	Cooling out	*Studebaker*
10:30 AM	First Aid	*Schwartz*
11:00 AM	Feeding	*Gallagher*
11:15 AM	Identification	*Merritt*
11:30 AM	Teeth care - floating, caps, etc.	*Griel/Card*
11:45 AM	Castration hazards	*Griel/Card*
12:00 N	Lunch	
1:00 PM	Demonstrations & Hands-On Experience	*Horse Barn*
	Vaccinations -- principles (ID, SC, IM)	*Griel*
	Tooth floating, deworm	
	Foot Care - Shoeing	*Studebaker*
	First Aid/leg wrap	*Studebaker*
	Temperature	*McClosky*
	Safety	*Studebaker/McClosky*
4:00 PM	Adjourn	

THE PENNSYLVANIA STATE UNIVERSITY
102 ARMSBY BUILDING
UNIVERSITY PARK, PENNSYLVANIA 16802

College of Agriculture
Department of Agricultural Education

Area Code 814
863-0443

July 15, 1980

TO: INSERVICE LOCAL CONSULTANTS

FROM: Don Evans

RE: Paravetical Competency Development Seminar

Our paravetical competency development seminar for vocational agriculture teachers who will be the local consultants for their respective inservice centers will begin at 8:00 AM on Monday, July 28, 1980. We will meet in Room 111 Animal Industry Building. Enclosed find the seminar schedule of activities.

There will be many paravetical competencies addressed during the ambitious schedule from July 28-August 1. The priority competencies as identified by our vocational agriculture teacher during the feasibility study are those that appear on the seminar schedule.

Several key resource specialists are planning to be with us. This will enhance our efforts to provide an outstanding paravetical competency development seminar as we prepare to deliver 15 in-service classes during FY 80-81.

Confirming overnight lodging is your responsibility; however, we have made arrangements for those who may want to stay at the Delta Theta Sigma fraternity. You can confirm on July 27 or 28. If you plan to stay at the frat house, please bring sheets and a blanket for a bunk bed.

When final written approval is received from the PDE/BVE in Harrisburg, we will be able to reimburse your travel to and from the seminar, as well as your subsistence. The reimbursement procedures will be discussed during the seminar. Please plan to dress in clothes that will be comfortable as you work with the poultry and livestock. You will get the opportunity several times for hands-on-experience.

We also have made arrangements for those individuals interested in enrolling for 2 credits (Ag Ed 497Gv - Paravetics). The cost will be $66 per credit or a total of $132. Registration will be held during the orientation session Monday morning.

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Again, thanks for joining our paravetical competency development team. Looking forward to seeing you on July 28 at 8:00 AM. If you have any questions, please don't hesitate to contact me at 814/863-0443.

DEE/phl

Enclosures

THE PENNSYLVANIA STATE UNIVERSITY
102 ARMSBY BUILDING
UNIVERSITY PARK, PENNSYLVANIA 16802

College of Agriculture
Department of Agricultural Education

Area Code 814
863-0443

August 29, 1980

Thank you for taking time from your busy schedule to participate in our Animal Health (Paravetical) Competency Inservice Class to prepare vocational agriculture teachers to assist with the coordination of this activity throughout the state. I have received many favorable comments from participants and resource persons concerning this effort.

Please find enclosed some information concerning the inservice. In addition, please find an evaluation form for you to complete and return in the enclosed envelope. I would sincerely appreciate a 100% return for my records.

During the next several months, Glen Easter will be working very closely with you as we prepare and present 15 inservice classes throughout Pennsylvania. If you have any questions, please don't hesitate to contact Glen or me.

Sincerely,

Donald E. Evans
Assistant Director
Vocational Teacher
Education

DEE/phl

Enclosures: Envelope
Evaluation Form
Inservice Information
Certificate

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THE PENNSYLVANIA STATE UNIVERSITY
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UNIVERSITY PARK, PENNSYLVANIA 16802

College of Agriculture
Department of Agricultural Education

Area Code 814
863-0443

August 8, 1980

We had a very successful week of Animal Health Competencies recently that set a tough standard for the In-Service Courses to follow. Part of the material utilized during the week included a large notebook of Animal Health related material and the attached reference list.

Although the notebook is being revised and enlarged for use in the In-Service Course, I have included a Seminar version since your Center is scheduled for the Fall term. The revised version will be available by the start of the Fall term and you will receive a copy of it as well. I would like for you to take immediate note of the attached reference list assimulation as your immediate assistance is needed. As the cover page indicates, I need to compile the reference list by September for the Fall classes. If you will take time to complete it and return it to me, the references you recommend can be included.

You will soon be receiving material to use in developing and scheduling the course for your center. If you have any question, feel free to call me at any time.

Thank you,

Glen Easter
Instructor and Resource Person

GE:djs
Enclosure

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THE PENNSYLVANIA STATE UNIVERSITY
102 ARMSBY BUILDING
UNIVERSITY PARK, PENNSYLVANIA 16802

College of Agriculture
Department of Agricultural Education

Area Code 814
863-0443

August 8, 1980

In order to assist you in preparing for the Fall 80 Animal Health Competencies In-Service Course, you will find pre-addressed and stamped envelopes to the teachers of your Center's area. In each envelope is an interest card for each teacher to fill out and return to you. The interest card is written such that not returning it to you, indicates no interest in the course. I am having the cards returned to you so that you may have an accurate record of who plans to attend, their species interests, and for use as potential sources of resource persons. Teachers who fall into more than one Center area will recieve a card addressed to each center. They will (should) return the card of the center they wish to attend.

The following schedule for the courses this fall is included for your consideration. As I am enrolled in courses on campus also, this schedule fits my needs. However, if it does not fit your schedule or your center's schedule, please call me immediately and adjustments will be made. Each class is to meet five nights for three hours over five weeks, unless a Saturday class can be arranged by the center coordinator. The Fall 80 term begins officially at 8 a.m. on September 8 and ends at 12:35 p.m. on November 15. It takes at least 8 fee paying persons to make the class go according to University course regulations.

Tentative Fall Schedule:

Clearfield	Sept. 9, 16, 23, 30 and Oct. 7	Tuesday nights
Indiana	Sept. 10, 17, 24 and Oct. 1 and 8	Wednesday nights
Upper Bucks	Oct. 13, 20, 27 and Nov. 4 and 11	Monday nights
Philadelphia	Oct. 14, 21, 28 and Nov. 5 and 12	Tuesday nights
Mansfield	Oct. 15, 22, 29 and Nov. 6 and 13	Wednesday nights

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Meeting times and places are to be decided upon by you. Envelopes were not sealed so that, if the above scheduling is acceptable, it can be included with the interest card. I am hopeful that you might include a letter of explanation and introduction about the course as it is to be taught at your center. Also, if you know of teaching positions within your area that vary with our address labels, labels are as of Spring 1980, please correct the address.

Dr. Larry Hutchinson, D.V.M., Penn State Extension Veternarian, has submitted an article to the Pennsylvania Veterinary Medical Association for their October Newsletter that will introduce the Animal Health Competency Course to their members and ask their cooperation. You will find copies of this article attached for your immediate use. The article can be hand carried to your local Veterinarian when you visit with them about their participation. Dr. L. Dwight Schwartz, D.V.M., Penn State Extension Veternarian also had a similar article in the July, 1980, issue of the Extension Service's Veterinary News.

If you have not sent in your recommended Animal Health references please do so. Your input is necessary to put together a viable reference list that can be used for the In-Service courses.

Remember, if you have questions or if I can assist you in any way, please call. My office number is 814-863-0443, 863-0444, and 863-0445. My home phone is 814-234-2207. My wife usually knows where I am or should be.

Thank you,

Glen Easter
Instructor and Resource Perso

GE:djs
Enclosures

THE PENNSYLVANIA STATE UNIVERSITY
102 ARMSBY BUILDING
UNIVERSITY PARK, PENNSYLVANIA 16802

College of Agriculture
Department of Agricultural Education

Area Code 814
863-0443

February 10, 1981

Dear Teacher:

The time has come for the Animal Health Competencies (Paravetical) Course in your vocational area. So far, there have been eight courses conducted across the state. Designed with participation and hands-on-experience in mind, the courses have been well received.

Please find attached a description of the course as it will be conducted in your area. If you plan to attend the course, fill out the pre-addressed post card and mail it. If you received more than one course description and post card, choose the center you wish to attend and return the correct post card.

Post cards are being returned to the local coordinator of the course so that they may have a better idea of how many and who plan to attend. The course is 400 level, 1 credit, and will cost $73.00 (unless you are a University employee, in which case the cost is $18.25). Thank you.

Sincerely,

Glen Easter

Glen Easter
Resource Person

GE:jh
Enclosures

P.S. NOTE ON POSTCARD! PLEASE ADD HORSES IF YOU ARE INTERESTED IN THEM..

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Dear Vo-Ag Teacher,

If you received more than one card, complete and return the card addressed to the center you wish to attend!

Will you be taking the course for:
Credit (fee necessary) ___ Audit/sit in (no fee) ___

What % of time should be spent on each species?
Beef ___ Sheep ___ Poultry ___ Other ___
Dairy ___ Swine ___ Horse ___ Other ___
Figures should total 100%

Name _____

Thank you,
Glen Easter
Instructor and Resource Person

THE PENNSYLVANIA STATE UNIVERSITY
102 ARMSBY BUILDING
UNIVERSITY PARK, PENNSYLVANIA 16802

College of Agriculture
Department of Agricultural Education

Area Code 814
863-0443

September 30, 1980

Dear

With your opening Animal Health (Paravetical) Competencies class a couple of weeks away, just a note to see how your plans are progressing. Your schedule of topics, places, times, and resource people should be taking shape. When you have finalized your first 2 or 3 classes and have the last 2 or 3 tentatively scheduled, drop me a photocopy of your itinerary. As meeting times and places may vary, your schedule will assist me with my travel planning.

Please find enclosed a copy of the self-evaluation that will be completed by the participants at the first and last classes. I enclose it as a guide to the skills to be included in the sessions. Keep in mind that it may not be practical or possible to include all of the skills. Use it as a guide only.

Although this was pointed out to me earlier, just a reminder about those dates I suggested in the initial letter. The dates in November are all one day off. In order to correspond to the correct night of the week, one day should be subtracted from each data, November 4 should be November 3 and so on.

If that did not confuse you, this will. In regard to the suggested dates, Clearfield and Indiana Centers are finding it necessary to juggle nights. This has been necessary to obtain resource people and animals. Although the original schedule (as corrected) fits my travel plans best, schedule your classes for optimum hands-on-experience. Also the first class does not need to be in the classroom, I can enroll people anywhere.

See you in a couple of weeks.

Sincerely,

Glen Easter
Resource Person

GE:jh

Enclosure

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APPENDIX B

COURSE EVALUATION INSTRUMENT

ANIMAL HEALTH (Paravetical) Competency Inservice Class Evaluation

Summary

The evaluation was designed to achieve the following specific objectives:

a. the adequacy of the course content,
b. the adequacy of the delivery system/staff,
c. the adequacy of the physical facilities,
d. and the usefulness of the topics to the participants in relating to vocational agriculture teaching in the school/community.

Probable objectives:

1. To find out why individual participant was in attendance.
2. To find out the livestock species preference of each participant.

To achieve the above objectives, each participant was asked to fill out an 8-item quesionnaire on the last day of the seminar. There were 19 respondents in all. Here is the analysis.

ITEMS

A. Reasons for attendance

Seventy-four percent of the participants indicated that they were in attendance in order to improve their professional skills and understandings.

Twenty-one percent were in attendance to represent their school/district and serve as a coordinator in future ag teacher paravetical competency workshops.

Five percent attended the seminar to accumulate credit toward a higher degree.

B. The four most popular livestock species were:

1. Dairy -- 37%
2. Swine -- 32%
3. Beef -- 16%
4. Sheep -- 10%

Poultry, horses, and goats were less popular.

C. Adequacy of the meeting places:

1. For general discussion -- 74% thought that the meeting place was very adequate.

2. For general demonstration -- 53% thought that the meeting places were very adequate while 42% thought they were adequate.

3. Facilities for library work, study, and research -- 53% were of the opinion that the facilities were adequate; 26% thought that these facilities were very adequate.

4. Adequacy of audio-visual (AV) equipment and materials -- 58% remarked that the AV equipment and materials were adequate; 26% rated the AV equipment and materials very adequate. Only 10% thought that the AV equipment and materials were very inadequate.

5. Adequacy of Item schedules: 47% thought that the item schedules were adequate; 42% remarked that the item schedules were very adequate; while 5% expressed that item schedules were very inadequate.

D. Usefulness of the topics to the participants is relative to vocational agriculture teaching in the school/community:

Seventy-nine percent rated the topics very useful.

E. Degree of achievement of objectives:

Fifty-three percent were of the opinion that the seminar achieved its objectives a good deal.

Forty-two percent thought that the seminar achieved its objectives completely. About 5 percent thought that the seminar achieved its objectives slightly.

F. Staff

1. Relations: 79% remarked that the staff relations were completely democratic.

2. Competence: 84% expressed that the staff was completely competent.

3. Delivery system: 42% were of the opinion that the staff was completely trained in educational methods.

4. Group leadership: 53% of the respondents thought that the staff was completely effective in group leadership.

G. Overall impression about the seminar: 74% opinioned that the seminar was excellent. Twenty-six percent remarked that it was good.

1. Seminar's weaknesses -- respondents' general comments include:

a. Insufficient information on livestock management as related to farmers' and farm situations.
b. Insufficient time for demonstrations.
c. Lecture time too long.

d. Unavailability of suitable animals for demonstration.
e. Sheep demonstration was totally inadequate.
f. Little relationship between lecture and hands-on experience in some topics.
g. Delivery system (lecture) is colleqe-oriented, i.e., too formal.

2. Strong points — respondents' general comments include:

a. Good presentations.
b. Competent veterinarians.
c. Good organization.
d. Experienced resource people.
e. Ideal environment for learning.
f. Trip to Roy Campbell's farm was very educative.
g. Swine day was greatest.
h. Working with other livestock species was very helpful.
i. Good use of visual aids.
j. "Hands-on-experience" were stimulating.

H. Suggestions for improvement:

1. There is need for more use of audio-visuals during lectures.

2. Use of scrub animals or NASCO-type models would take care of lack of demonstration animals.

3. More "hands-on-experience" in some areas.

4. Eliminate lengthly morning sessions.

5. There is need for emphasis on disease identification.

6. More coordination between veterinarians and ag teachers is essential.

7. There should be opportunities for participants to go back and examine the animals they operate/work on.

EVALUATOR's COMMENTS

Although the evaluation services planned for the seminar could not be implemented, the evaluator thought that there was conclusive evidence (infomration from the 19 respondents) that showed that the seminar was a great success. The seminar was obviously well planned and carefully carried out. The resource persons were very knowledgeable and competent. The evaluator thought that the seminar achieved its objectives completely.

Recommendations:

1. It is highly recommended that field trips like the one taken to Roy Campbell's farm should be encouraged. These innovative farmers could be identified by either veterinarians or extension specialists. An alternative to field trips would be to invite

the individual, innovative farmer to address the participants on the management techniques as practiced on his farm. This technique was widely used in Iowa.

2. Because this seminar was without doubt an adult education (informal), there was need to make it as information as possible. The seating arrangement, as well as the delivery system should reflect this.

3. It is recommended that there should be 1 or 2 short breaks during each morning session. Apart from the fact that it is refreshing, the "socializing aspect" occurring during these periods is highly beneficial.

4. It is highly recommended that future seminars should be held when animals for demonstrations would be copiously available. Spring seems to be an ideal time; but if summar is the only ideal time to hold the seminar, animals for demonstrations could be purchased from other sources if they are not available on the University farm. Whenever this practice is in operation, the purchased animals should not be allowed to mix with the University herd. A common practice at Iowa State University was to bring the animals into the livestock barn near the Animal Science Building where demonstrations would be successfully carried out. These precautionary measures should be taken where swine and poultry were involved.

Date _____

Center _____ Social Security # _____

ANIMAL HEALTH COMPETENCIES

Read the list of animal health competencies. Using the rating scale below determine your level of performance for each competency. Fill in the corresponding number indicating your competency level, in the appropriate column. After filling in the boxes, total all the numbers and record in the appropriate box.

Competency rating scale: 0, no instruction given; 1, have no knowledge and cannot perform; 2, have knowledge of practice, but no experience; 3, have limited experience; 4, can perform with some proficiency; 5, proficient.

Species Competency (Beef & Dairy)	Before	After
1. Detect cows in heat		
2. Detect cows in labor		
3. Detect and treat parasitic animals		
4. Detect sick animals		
5. Inject medicines		
6. Pass a stomach tube		
7. Tattoo cattle		
8. Apply ear tags		
9. Castrate calves		
10. Implant growth promotants		
11. Trim feet		
12. Remove extra teets		
13. Dry treat a dairy cow		
14. Check for mastitis		
15. Treat for mastitis		
16. Restrain and cast an animal		
17. Restrain an animal in a holding chute		
18. Identify a displaced abomasum		
19. Ring a bull		
20. Dehorn cattle		
21.		
TOTAL		

Swine	Before	After
1. Detect sows in heat		
2. Detect sows in labor		
3. Assist in farrowing		
4. Detect and treat parasitic animals		
5. Recognize symptoms of common swine disease		
6. Administer injections		
7. Clip needle teeth		
8. Ear notch		
9. Castrate		
10. Dock tails		
11. Handle boars and sows safely		
12. Restrain swine		
13. Ring hogs		
14. Necropsy of dead baby pig		
15. Detect sick animals		
16.		
17.		
18.		
19.		
20.		
TOTAL		

Sheep & Goats	Before	After
1. Prepare ewes and rams for breeding season		
2. Assist ewes at lambing		
3. Check udder at lambing		
4. Assist newborn animals		
5. Detect and treat parasitic animals		
6. Inject medicines		
7. Castrate ram lambs		
8. Dock lambs		
9. Trim feet		
10. Detect and treat foot rot		
11. Shear sheep		
12. Catch and restrain animal		
13. Determine age		
14. Determine body temperature		
15. Detect sick animals		
16. Recognize symptoms of common sheep disease		
17. Apply ear tags		
18.		
19.		
20.		
21.		
TOTAL		

Horse	Before	After
1. Detect sick or injured animals		
2. Detect and treat parasitic animals		
3. Recognize common feet and leg problems		
4. Identify common feet and leg problems		
5. Catch and lead a horse		
6. Restrain a horse safely		
7. Determine age by teeth		
8. Care for horses teeth (Floating teeth)		
9. Load and transport horses		
10. Horse leg and foot care*		
11. Cool out a horse		
12. Explain castration hazards		
13. Administer injections		
14. Detect mares in heat		
15. Handles horses safely in breeding		
16.		
17.		
18.		
19.		
20.		
TOTAL		

* Includes leg wraps, hoof trimming, practical aspects of horse shoeing, structural problems, etc.

Poultry	Before	After
1. Cull non-layers		
2. Caponize cockerels		
3. Debeak		
4. Wing sex chicks		
5. Vent sex chicks		
6. Necropsy of dead bird		
7. Apply leg bands		
8.		
9.		
10.		

TOTAL

General	Before	After
1. Interpret labels on medicines		
2. When to summons the Vet		
3. Care of medicines		
4. Keep accurate health records		
5.		
6.		
7.		

TOTAL

APPENDIX C

ADDITIONAL NEEDS INSTRUMENT

INSERVICE NEEDS
IN
ANIMAL SCIENCE

1. Check your teaching area(s).

_____ Production
_____ Horticulture
_____ Ag Sales and Services
_____ Forestry
_____ Natural Resources
_____ Agricultural Mechanics
_____ Ag Products (Processing)
_____ Other _____

2. Would you participate in a similar (similar to the Animal Health Competencies Course) hands-on inservice course in Animal Science
_____ Yes _____ No

3. Do you need a similar course in:

_____ Beef Management
_____ Dairy Management
_____ Equine Management
_____ Poultry Management
_____ Sheep & Goat Management
_____ Small Animal Management
_____ Swine Management
_____ Basic Nutrition
_____ Applied Ruminant Nutrition
_____ Applied Monogastric Nutrition
_____ Livestock Evaluation
_____ Meat Processing
_____ Dairy Products Processing
_____ Livestock Update
_____ Livestock Facilities & Equipment
_____ Fitting and Showing Livestock

APPENDIX D

CORRESPONDENCE OF APPRECIATION

THE PENNSYLVANIA STATE UNIVERSITY
102 ARMSBY BUILDING
UNIVERSITY PARK, PENNSYLVANIA 16802

College of Agriculture
Department of Agricultural Education

Area Code 814
863-0443

December 5, 1980

Dear School Administrator:

During the Fall Term, the Agricultural Education Department conducted an Animal Health Competencies (Paravetics) course in three of its inservice areas across the state. The course was specifically designed for hands-on-experience. This required that the course be coordinated by an area teacher. The key to the success of the classes was the centers' local coordinators. With Armstrong School District in the Indiana Inservice area, Ron Shrock was asked and accepted the responsibility of coordinating the area's course. Assisting Ron was Ed Kuckuck of the Blairsville Saltsburg School District.

Five evening classes were conducted entailing animal health competencies with swine, dairy cattle, sheep, beef cattle, and poultry. Ron handled the swine and dairy cattle. All of Ron's classes were excellent. Ron coordinated with local farmers to provide the animals and facilities needed to teach and practice the skills with. He arranged for area Veterinarians and Livestock Specialists to attend each class and provide professional expertise. Then Ron coordinated the evening's activities as they unfolded. For dairy, he held class on his own family farm and was one of the experts as well as coordinator for the evening. And I will add, a very qualified expert at that.

The success of the class rested entirely upon the willingness of the local coordinator to make appropriate arrangements. Ron did this superbly. Hence, the course was well planned and extremely successful. Ron represented Armstrong School District and the Kittanning community on the highest accord. His work with the class is greatly appreciated by the Department.

Sincerely,

Glen Easter

Glen Easter
Resource Person

Don Evans

Don Evans
Project Coordinator

GE/DE:jh

AN EQUAL OPPORTUNITY UNIVERSITY

THE PENNSYLVANIA STATE UNIVERSITY
102 ARMSBY BUILDING
UNIVERSITY PARK, PENNSYLVANIA 16802

College of Agriculture
Department of Agricultural Education

Area Code 814
863-0443

June 1, 1981

Dear Resource Individual:

The State College Animal Health Competencies Course was an excellent success. The course was designed to offer hands-on-experience under expert guidance. Thanks to your guidance this was accomplished. The Department truly appreciates your taking time to help us. Although the skills may seem mundane to many, Vocational Agriculture Teachers have a constant need for updating, refreshing, and initial learning of livestock health skills.

The seven classes that Mr. Dave Seamans coordinated were excellent examples of what can be done when the farmers, veterinarians, livestock specialists, Vo-Ag Teachers, and the University join in a cooperative effort.

Please let us know if we can ever return the favor and be of assistance. Thanks a million!

Sincerely,

Glen Easter
Resource Person

Don Evans
Project Coordinator

GE/DE:lcm

AN EQUAL OPPORTUNITY UNIVERSITY

APPENDIX E

TASK SHEET DEVELOPMENT

PROGRAM

6:00- 6:05 . . . . Welcome: Dr. James Mortensen, Associate Professor of Agricultural Education

6:05- 6:10 . . . . Opening Remarks: Dr. Sam Curtis, Professor and Interim Head, Department of Agricultural Education

6:10- 6:20 . . . . Overview of Poultry and Egg Workshop Program: Bayo Ajala, Graduate Student, Department of Agricultural Education

6:20- 7:20 . . . . Conducting Your Poultry and Egg Workshop: Bayo Ajala

7:20- 7:50 . . . . Question Time

7:50- 8:00 . . . . Break (coffee and doughnuts)

8:00-10:00 . . . . Poultry and Egg Task Orientation:
Dr. D. L. Schwartz, Professor of Veterinary Science (Extension)

-- Post-mortem examination
-- Recognizing disease symptoms
-- Vaccinating for fowl pox

Mr. Herb Jordan, Extension Specialist in Poultry Science

-- Culling for poor performance

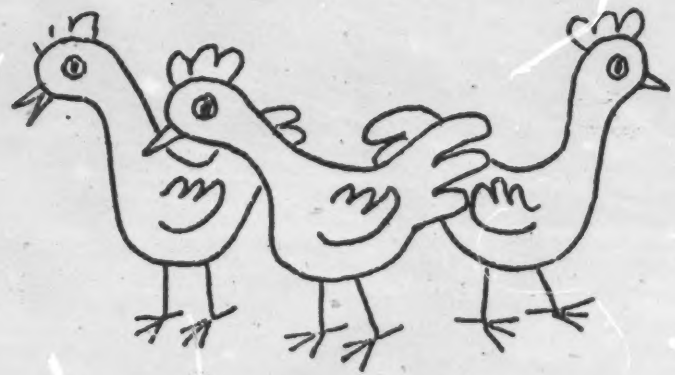
Mr. Paul Parsons, Poultry Farm Manager

-- Candling eggs
-- Debeaking chickens

Mr. Mark Wagman, Member, PSU Judging Team

Ms. Donna Stavik, Graduate Student, Poultry Science

-- Judging live chickens



APPENDIX F

NEWS RELEASE

NEWS
9-9-80

THE PENNSYLVANIA STATE UNIVERSITY
DEPARTMENT OF PUBLIC INFORMATION AND RELATIONS
312 OLD MAIN BLDG., UNIVERSITY PARK, PENNSYLVANIA 16802 / TELEPHONE 814 865-7517

Contact: Naomi Rock Novak
(814) 865-7517
Home: (814) 237-1875
Joe Bennett: (814) 865-7517
Home: (814) 466-7709

For Immediate Release

University Park, Pa. -- Farmers have to be good at such things as debeaking poultry, ringing a bull, clipping piglets' incisors, sheering sheep, wrapping horses' legs and other animal health skills.

But farmers' quasi-veterinary skills vary enormously, depending on how and from whom they were learned.

Seeking to better educate farmers and vocational agricultural teachers who instruct future farmers, The Pennsylvania State University has begun the nation's first animal health "paravetical" competency in-service course.

The University recently conducted a five-day intensive training seminar, aimed at reducing animal suffering and farm losses due to mishandling of animals. Attending were 21 teachers from the state's 15 vo-ag in-service education centers.

"The idea," explains Dr. Donald E. Evans, Penn State's assistant director for vocational teacher education, "is to prepare a core of teachers who eventually will help educate the state's 379 vo-ag teachers. They, in turn will teach high school students and adult farmers, who otherwise might not have a chance to learn animal health paravetical skills properly."

To launch the program, Penn State's Departments of Agricultural Education and Veterinary Science sponsored the recent seminar. The program was directed by Dr. Evans and taught by University Extension veterinarians Drs. Dwight Schwartz and Larry Hutchinson, plus several other university specialists.

The skills taught--first in the classroom, then in the field--were chosen based on a survey of the state's vo-ag teachers, 80 percent of whom responded.

- more -

add 1 -- farm animals

Each of the five days was devoted to a specific animal and some of the more important or difficult skills. While some skills were similar for all species, such as general hygiene, vaccination, deworming and taking temperature and blood samples to check for diseases and parasites, other paravetical competencies were animal-specific.

Thus, on poultry day, the teachers learned such skills as determining sex; debeaking (cutting and cauterizing beaks to prevent chickens from harming one another;) and caponizing (removing testicles to enable the birds to develop high quality meat).

On beef and dairy day the skills included removing a bull's horns, trimming its hoofs, and putting a ring in its nose to make the animal easy to control with a staff.

Swine skills included castration; tatooing and ear notching for identification; and incisor snipping on piglets--to protect mother pigs during suckling.

For sheep, the teachers learned castration; dip and spray to control parasites; sheering and docking (cutting off part of the tail).

Horse training concentrated on shoeing, teeth trimming and basic safety, including critical wraps and treatments for legs to prevent strains and sprains.

"Essentially," says Dr. Evans, "we crammed a great deal into five days. We think that while vo-ag teachers are competent in several of these skills, many are using techniques handed down from generation to generation--and some of these techniques are obsolete."

nrn

Dr. Donald E. Evans (814) 863-0443

DEPARTMENT OF PUBLIC INFORMATION AND RELATIONS
312 OLD MAIN
THE PENNSYLVANIA STATE UNIVERSITY
UNIVERSITY PARK, PA 16802

9-9-80

PROPER HORSE SKILLS--were but some of the quasi-veterinary techniques taught recently to farmers and vo-ag teachers, at the nation's first animal health "paravetical" competency in-service course. Sponsored by The Pennsylvania State University's Department of Agricultural Education and Veterinary Science, the program was aimed at creating a core of vo-ag teachers who, over time, will better educate other vo-ag teachers and current and future farmers about health care handling of swine, cattle, sheep, poultry and horses. Here Ward W. Studebaker Jr., assistant in animal science, demonstrated shoeing to some of the 21 state vo-ag teachers who attended the five-day conference. The participants are, from left: Elda Conners, Derry Area High School, Derry; Leroy Smeltz, Tri-Valley High School, Hegins; Harold Cameron, Huntingdon Area High School, Huntingdon; and Ronald Schrock, Armstrong School District, Ford City. Seated is Mr. Cameron's daughter, Ruth. The program was coordinated by Dr. Donald E. Evans, Penn State's assistant director of vocational teacher education.

nrn

DEPARTMENT OF PUBLIC INFORMATION AND RELATIONS
312 OLD MAIN
THE PENNSYLVANIA STATE UNIVERSITY
UNIVERSITY PARK, PA 16802

9-9-80

DEMONSTRATING PROPER SHOEING--is Ward W. Studebaker Jr., an assistant in animal science at The Pennsylvania State University. He recently helped teach a five-day animal health "paravetical" competency in-service course, for 21 teachers from the state's 15 vo-ag in-service education centers. Sponsored by the University's Departments of Agricultural Education and Veterinary Science, the program is the first in the nation. It aims to create a core of vo-ag teachers who, over time, will better educate other vo-ag teachers and current and future farmers, about health care handling of sheep, cattle, swine, poultry and horses. Looking on above are Dr. L. Dwight Schwartz, professor of veterinary science extension, right; Steve Miller, a vo-ag teacher at Conrad Weiser High School, Robesonia; and Ag education graduate student Jenni Williams Martsolf. The program was coordinated by Dr. Donald E. Evans, Penn State's assistant director for vocational teacher education.

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ANIMAL HEALTH COMPETENCY DEVELOPMENT IN AGRICULTURAL EDUCATION

Dr. Donald E. Evans
Assistant Professor

Mr. Glen Easter
Instructor

Becoming competent and maintaining a high level of competence is a challenge that faces all persons in all professions. The need to remain up to date during the rapid changes in technology that are occurring in the agricultural industry is a challenge that faces all agricultural educators. One area of agriculture with rapid changes in technical knowledge is animal health. With all the drugs, feed additives, and animal health equipment on the market, agricultural educators must be alert to the correct uses and approved methods of attending to food and companion animal health.

During 1980/81, the Department of Agricultural and Extension Education at Penn State conducted 14 classes for vocational agriculture teachers and extension agents. These classes were held at 12 locations throughout the state, with 196 teachers and agents participating. Five sessions were held for each class addressing animal health competencies for dairy, beef, swine, poultry, horses, and small animals. Each of the sessions were designed to meet the identified technical needs of participants. Some of the competencies discussed and demonstrated were as follows: implanting beef cattle, docking sheep, ear notching swine, castration of food animals, controlling diseases and parasites, dehorning cattle, identification techniques, etc. In all, 92 animal health competencies were presented in the many sessions conducted throughout the state.

To deliver the selected animal health skills to teachers and agents, a series of activities were planned. First, a state-wide study was conducted to prioritize the animal health competencies by specie and geographical location. A group of 14 vocational agriculture teachers were selected to

attend a five-day animal health clinic sponsored jointly by the Departments of Agricultural and Extension Education and Veterinary Science. The clinic was held at the University farms and at several local farms in the State College area. A primary emphasis during the clinic was to teach these skills in a similar environment as they would be taught to high school vocational agriculture students and local farmers. Also, a special effort was made to provide all participants with hands-on-experience, i.e., field trip to Roy Campbell's, a local farmer, to learn and practice baby pig health skills with eight litters of piglets.

Each of these vocational agriculture teachers attending the clinic then assisted University specialists to plan, organize, and conduct the classes throughout the state. Local farmers were contacted by the teachers to host the sessions on their farms. Local veterinarians and other highly skilled practitioners in the area were invited to help teach the animal health competencies. The skills were first explained, then demonstrated, followed by hands-on-experience for each participant. Whether it was castrating calves, removing extra teats, administering iron shots to pigs, the learning experiences were repeated over and over again across the state. In each situation, special attention was given to where the animal owners and/or educators stop and the veterinarian begins. Some skills were only explained since they should only be performed by a veterinarian.

What impact will this total inservice education program have on agriculture in our state? There are several animal health competencies that vocational agriculture teachers and county extension agents are requested to perform during farm and home visits to student projects or adult farming enterprises. The competence to perform these skills is considered by some as part of the job as an educator. It is very important that such techniques

are performed in a manner that is safe, scientifically sound, humane, and causes minimum discomfort to the animal patient.

Likewise, there is concern by veterinarians about inadequately educated persons providing animal health services. It is recognized, however, that most of the identified animal health competencies can be performed adequately by persons other than veterinarians, especially if they are properly educated in each procedure used. Proper education includes some instruction in and knowledge of animal anatomy, physiology, and asepsis to conduct the skill. Such knowledge is essential in order to minimize the pain, suffering, and/or undesirable side effects resulting from the animal health procedures performed.

During the animal health competency development for agriculture educators, only those procedures which were not in violation of the Pennsylvania Veterinary Practice Act were addressed. Even many of the routine animal health procedures such as castration, dehorning, and vaccination are a violation of the Act when done on a fee or charge basis by unlicensed persons whether or not they are veterinarians. Licensure is the legal requirement that permits a person to charge for veterinary services rendered.

The basic animal health competencies presented during the many sessions on local farms throughout the state are necessary if our agriculture is to continue to produce a major portion of the world's food supplied. The how and why livestock are raised must be taught to the agriculture students and farmers, as well as to the general public. To do so, agriculture educators must understand and maintain competence in basic animal health skills. This state-wide inservice education to develop agriculture educator animal health competencies sponsored by University veterinarians and educators was a major step to address this need.

APPENDIX G

ADDITIONAL CORRESPONDENCE

THE PENNSYLVANIA STATE UNIVERSITY
COLLEGE OF AGRICULTURE
217 AGRICULTURAL ADMINISTRATION BUILDING
UNIVERSITY PARK, PENNSYLVANIA 16802

Office of Associate Dean
for Resident Education
Tel: (814) 865-7521

December 16, 1980

Dr. John H. Mitchell
Professor and Head
Department of Vocational
Agricultural Education
The University of Southwestern
Louisiana
Lafayette, LA 70504

Dear Dr. Mitchell:

Thank you for your interest in our Animal Health Competency Development project for vocational agriculture teachers in Pennsylvania.

Please find enclosed a complete copy of our proposal for the Paravetical Competency Development Inservice project. If you have any questions, please don't hesitate to contact me.

Sincerely,

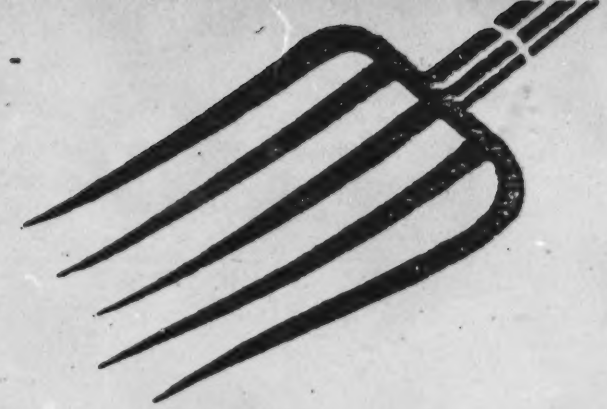
Donald E. Evans
Assistant Director
Vocational Teacher
Education

DEE/phl

Enclosure: Proposal and budget

AN EQUAL OPPORTUNITY UNIVERSITY

Here's the Pitch!



TO: Students Preparing for Teacher Certification in Agriculture

FROM: James H. Mortensen and Paul L. Heasley

RE: Agricultural Skills Workshops

Field-based (off-campus) skills workshops are being offered to develop and enhance the competence of undergraduate agriculture students in the areas of animal, plant, and soil science; agribusiness management; and agricultural mechanics. Intended primarily for individuals preparing to become teachers of vocational agriculture, the workshops are offered during evenings and weekends as Ag Ed 297v "Special Topics." A minimum of 25 contact hours in workshop activities is required for one credit. However, enrollment for credit is optional. Materials, supplies, and transportation for the workshops are provided at no charge. Participants are expected to supply their own lunches.

Registration may be completed in Room 106 Armsby. Enrollment is limited so students will be accepted on a first-come, first-serve basis. These offerings are sponsored by the Department of Agricultural and Extension Education with a project funded by the Pennsylvania Department of Education.

For additional information, see your advisor or the project directors, Paul Heasley or James Mortensen.

WORKSHOP OFFERINGS FALL TERM 1981

LANDSCAPE/NURSERY PRODUCTION

Learn how to propagate plant material, repot plant material, mix potting soil, ball and burlap landscape material, water and fertilize plant material, winterize plant material.

WHERE: Dubois Nursery
WHEN: Saturday, September 19--9 a.m.-1 p.m.
MAXIMUM ENROLLMENT: 12

AND: Saturday, November 7 OR November 14--9 a.m.-1 p.m.
MAXIMUM ENROLLMENT: 6 each day

Van leaves Armsby Building at 8:30 a.m.

TRACTOR DRIVING

Learn how to identify centers of gravities and load capacity, identify parts of a tractor, perform the pre-start check-out as listed in the FFA tractor driving contest, start tractors with different ignition systems, hitch equipment to a tractor, drive tractors and pull 2- and 4-wheeled equipment.

WHERE: 112 Armsby Building
WHEN: Thursday, September 24--6:30-10:30 p.m.
MAXIMUM ENROLLMENT: 12

AND: Williams Farm
WHEN: Saturday, September 26--8 a.m.-4 p.m.

Van leaves Armsby Building at 7:30 a.m.

FITTING AND SHOWING DAIRY AND BEEF ANIMALS

Learn how to identify good characteristics of a dairy/beef animal, fit a dairy and beef animal, brush and comb a dairy and beef animal, show a dairy and a beef animal.

WHERE: Area Farms
WHEN: Tuesday, September 29 and Thursday, October 1--7-11 p.m.
MAXIMUM ENROLLMENT: 10

Van leaves Armsby Building at 6:15 p.m.

MACHINERY ASSEMBLY

Learn how to assemble a cornpicker, identify and install parts of a cornpicker, test parts before and after installing them, test cornpicker and identify common problems.

WHERE: Markle's Farm Equipment
WHEN: Tuesday, October 13 and Thursday October 15--7-11 p.m.
MAXIMUM ENROLLMENT: 8

Van leaves Armsby Building at 6:40 p.m.

FORESTRY

Learn how to identify certain forestry management systems, explain and use log and stand tables, demonstrate and use a crusing stick, caculate the value of an individual tree and a timber stand, identify the characteristics of an acceptable tree for harvesting.

WHERE: University Forestry Site
WHEN: Saturday, October 17--8 a.m.-5 p.m.
MAXIMUM ENROLLMENT: 12

Van leaves Armsby Building at 7:45 a.m.

CORN YIELD CHECK/SOIL TESTING

Learn how to explain the purpose of a corn yield check, perform a corn yield check, calculate the moisture of corn, explain the purpose of soil testing, map out a field and take soil samples, read soil test results and recommendations.

WHERE: Agway Research Plots
WHEN: TO BE ANNOUNCED -- 8 a.m.-5 p.m.
MAXIMUM ENROLLMENT: 12

Van leaves Armsby Building at 7:30 p.m.

SOME FUTURE OFFERINGS

Winter Term 1982:
- Chainsaw Operation
- Masonry
- Greenhouse Controls
- Calibrating Equipment

Spring Term 1982:
- Swine Management Skills
- Sheep Management Skills